

ABSTRACT OF THE DISCLOSURE

A bias voltage generating circuit and a differential amplifier which can ensure a constant current through a constant current circuit in a differential amplifier circuit even in case that a common mode voltage of the reference voltage signal to the differential amplifier circuit changes are attained. A constant current is generated employing a current source (I_{sw}) and a current mirror circuit composed of a transistor (M1 and M2). The constant current is supplied to a source of a transistor (M3). A drain and a gate of a transistor (M4) are connected with a drain of the transistor (M3). A reference voltage signal (V_{ref}) to a differential amplifier circuit is inputted to a gate of the transistor (M3), and a drain potential of the transistor (M4) is made to function as a bias voltage ($bias_n$) to a constant current circuit in the differential amplifier circuit. Even if an absolute value of the reference voltage signal (V_{ref}) changes, the bias voltage ($bias_n$) has a feedback action ensuring the constant current through a constant current circuit.